







55. (Currently Amended) Method The computerized method of claim 54, wherein a sequence of orders in the order matrix indicates a time sequence of manufacture, the method further comprising the steps of determining, in accordance with the specified start time, a build time when the article of manufacture associated with each particular order will be manufactured;

the step of mapping comprising mapping the evaluations of the unique code rules to the corresponding code rules in the position variant definitions only for those particular orders which have a build time within the validity period of the respective position variant.

56. (Currently Amended) System for use in ~~manufacturing~~ assisting in the manufacture of an article of manufacture having a plurality of structural design variants, the system comprising:

a computer having a processor and a memory;

the memory including information representing a bill of materials BOM containing a plurality of position variant definitions, each position variant definition being assigned to a particular position corresponding to a location in the article of manufacture, each position variant definition further identifying a specific part, and including a code rule indicating when the position variant definition should be selected and thereby when the identified part should be used at the corresponding location;

the memory further including information representing at least one order specifying particular design options which define a particular design variant of the article; wherein each code rule for a particular design variant is a logical statement including one or more unique code rule elements;

the processor being configured to:

(a) extract unique code rules from the BOM and evaluate the code rules for each position variant definition in accordance with the respective design options for each order to identify an appropriate part for use in each location of the corresponding particular design variant of the article; and

(b) produce an output indicating for each order the appropriate parts for use in the corresponding particular design variant of the article;

the particular design variant defined by a specific order ~~being manufactured~~ corresponding to the article of manufacture using the parts indicated for that specific order.

57. (Previously Presented) System of claim 56, wherein the processor is configured to evaluate the code rules by:

mapping the evaluations of the unique code rules to the corresponding code rules in the position variant definitions in the BOM; and

determining the appropriate position variant definition to select for each position in accordance with the mapped code rule evaluations.

58. (Previously Presented) System of claim 57, wherein:

each code rule comprises at least one code rule element;

each design option corresponds to a respective code rule element; and

the orders are contained in an order matrix which cross references each order against the code rule elements;

the processor being further configured to evaluate each unique code rule by:

dividing each unique code rule into its discrete code rule elements;

linking each discrete code rule element with order data for the corresponding code rule element in the order matrix; and

evaluating each unique code rule in accordance with the order data linked to the associated discrete code rule elements .

59. (Previously Presented) System of claim 58, wherein:

the processor is configured to divide each unique code rule by factoring each unique code rule into simpler code rule components and dividing the code rule components into discrete code rule elements;

the processor being further configured to evaluate each code rule component in accordance with the order data linked to the associated discrete code rule elements and evaluate each unique code rule in accordance with the evaluated code rule components.









~~a program module~~ determining, in accordance with the specified start time, a build time when the article of manufacture associated with each particular order will be manufactured; and

~~the mapping program module comprises a module~~ mapping the evaluations of the unique code rules to the corresponding code rules in the position variant definitions only for those particular orders which have a build time within the validity period of the respective position variant definition.

68. (Currently Amended) ~~Computer program~~ The programmable medium of claim 66, wherein the computer program further performs the step of comprising a program module repeating the mapping step upon receipt of a resequenced order matrix to determine revised manufacturing parts requirements in accordance with the resequenced order matrix.